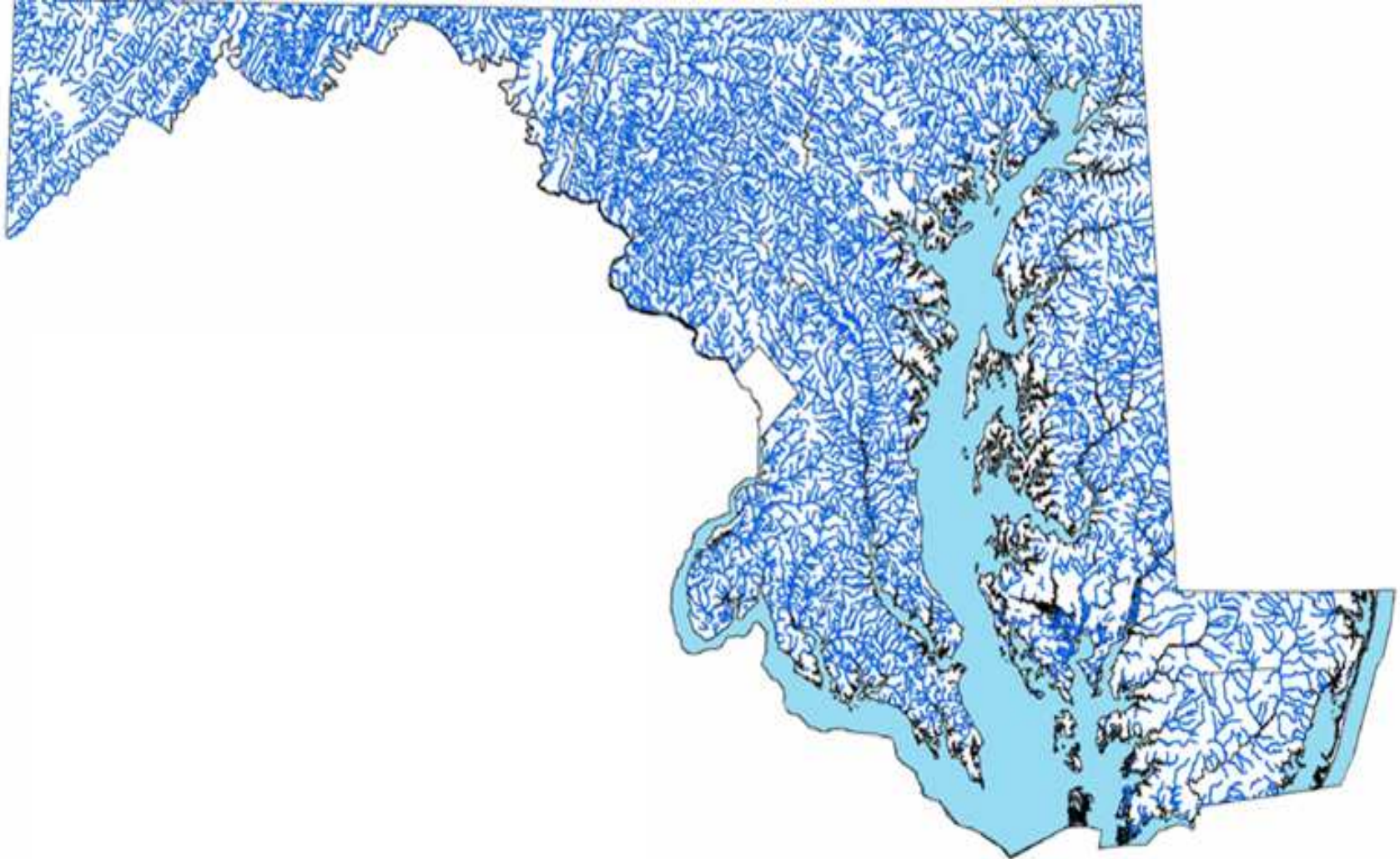


Maryland Biological Stream Survey Spring Training 2017

February 24th, 2017



The Maryland Biological Stream Survey is Designed to Evaluate the Ecological Conditions of Maryland's Non-Tidal Streams



MBSS Goal and Objectives

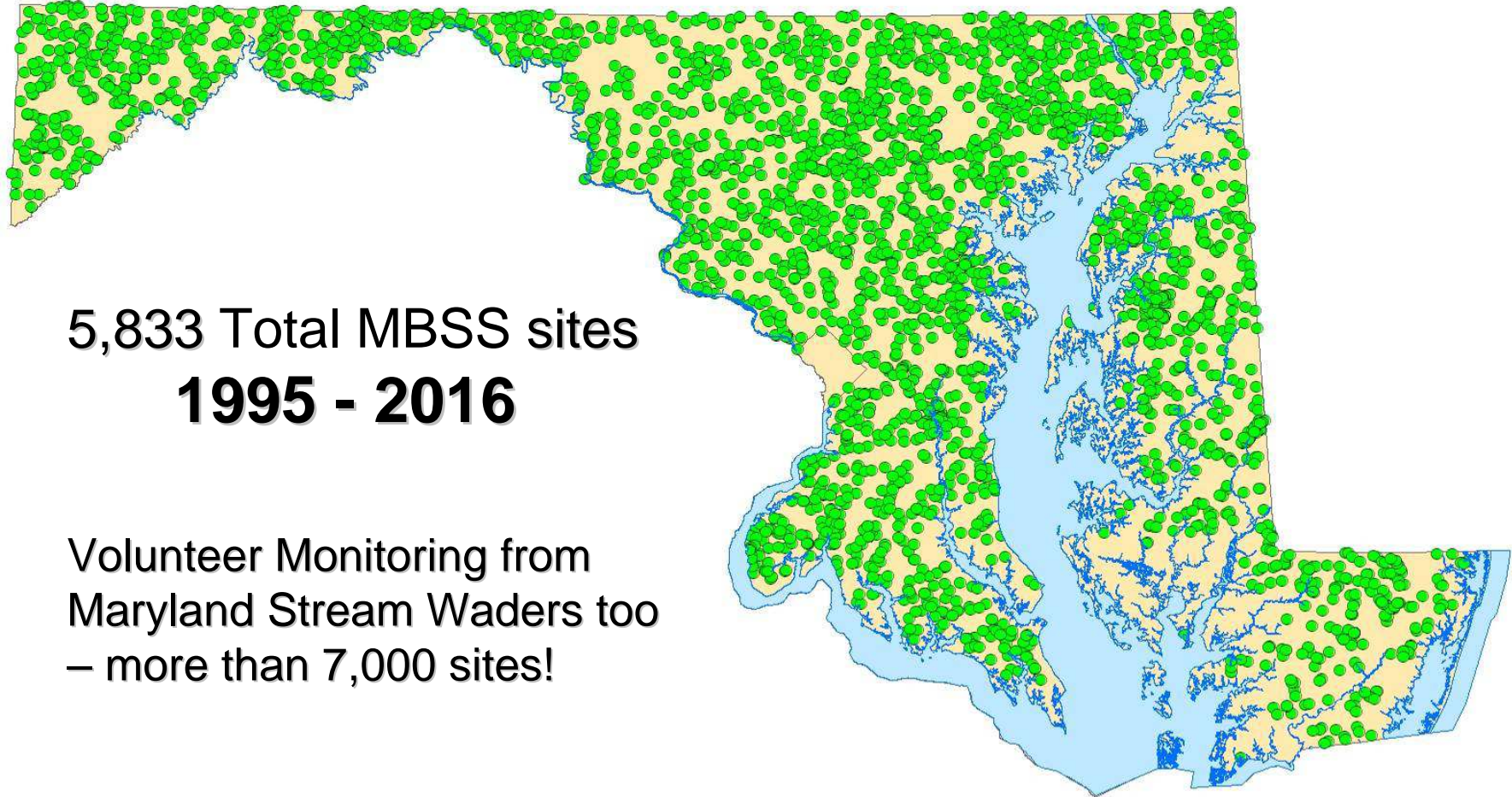
Goal:

Provide the best possible information to ensure the protection and restoration of Maryland's stream ecological resources

Objectives:

- **Assess, with known confidence, the current condition of ecological resources in Maryland's streams and rivers**
- **Identify causes of adverse effects (stressors) to ecological resources**
- **Provide an inventory of biodiversity in Maryland's streams**
- **Document changes (improvements and degradation) over time in Maryland's stream ecological conditions and biodiversity status**

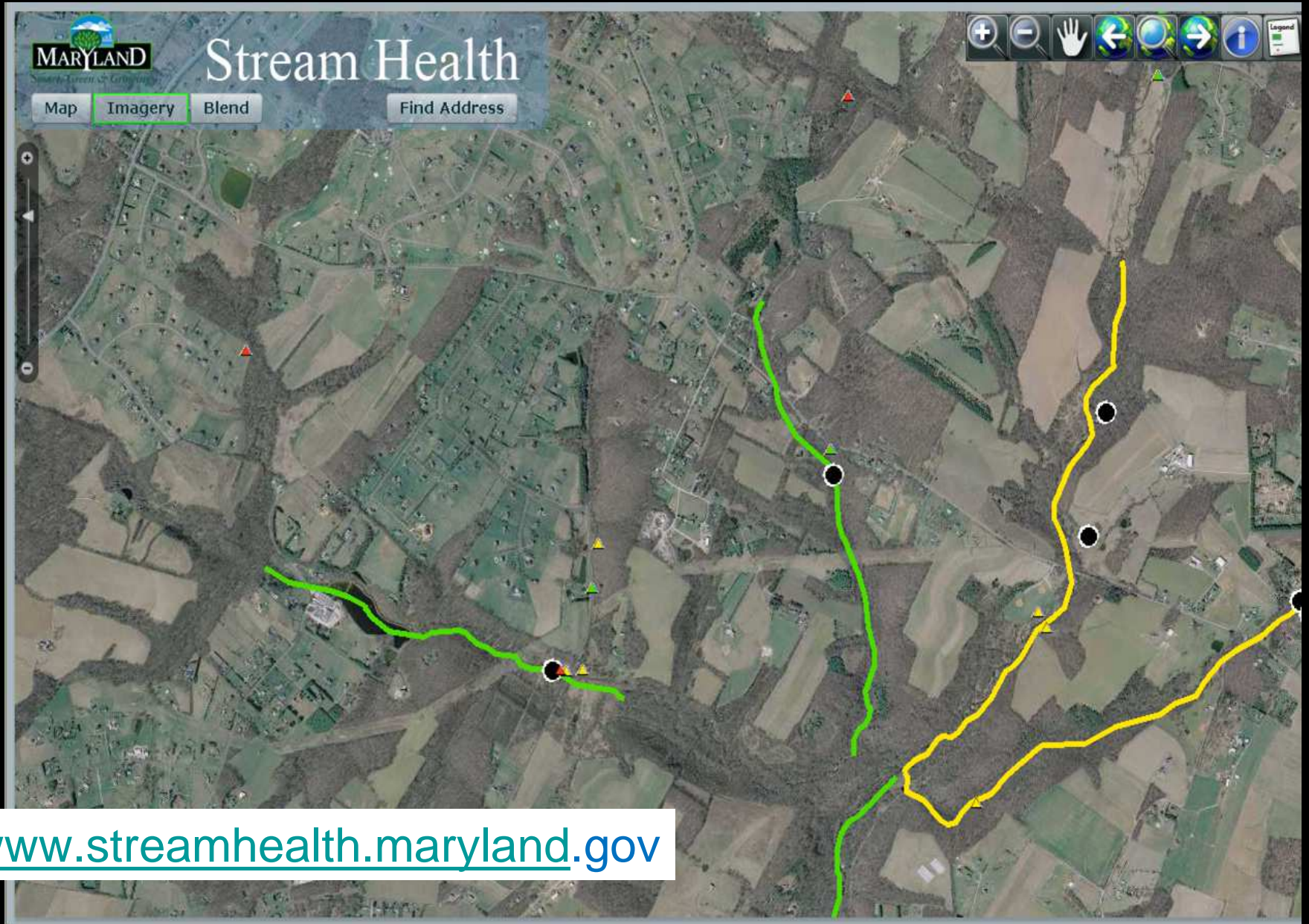
Every Year We Add More Sites



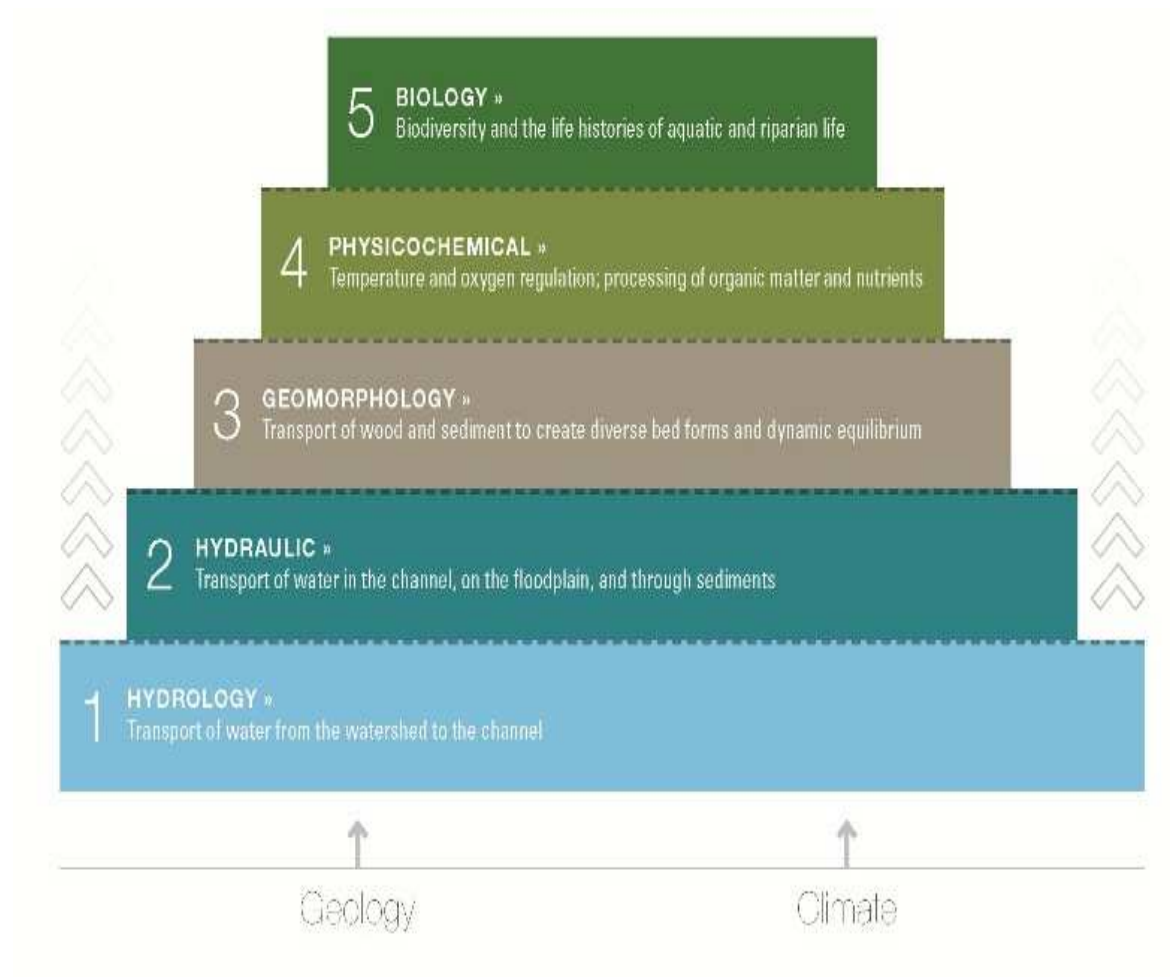
5,833 Total MBSS sites
1995 - 2016

Volunteer Monitoring from
Maryland Stream Waders too
– more than 7,000 sites!

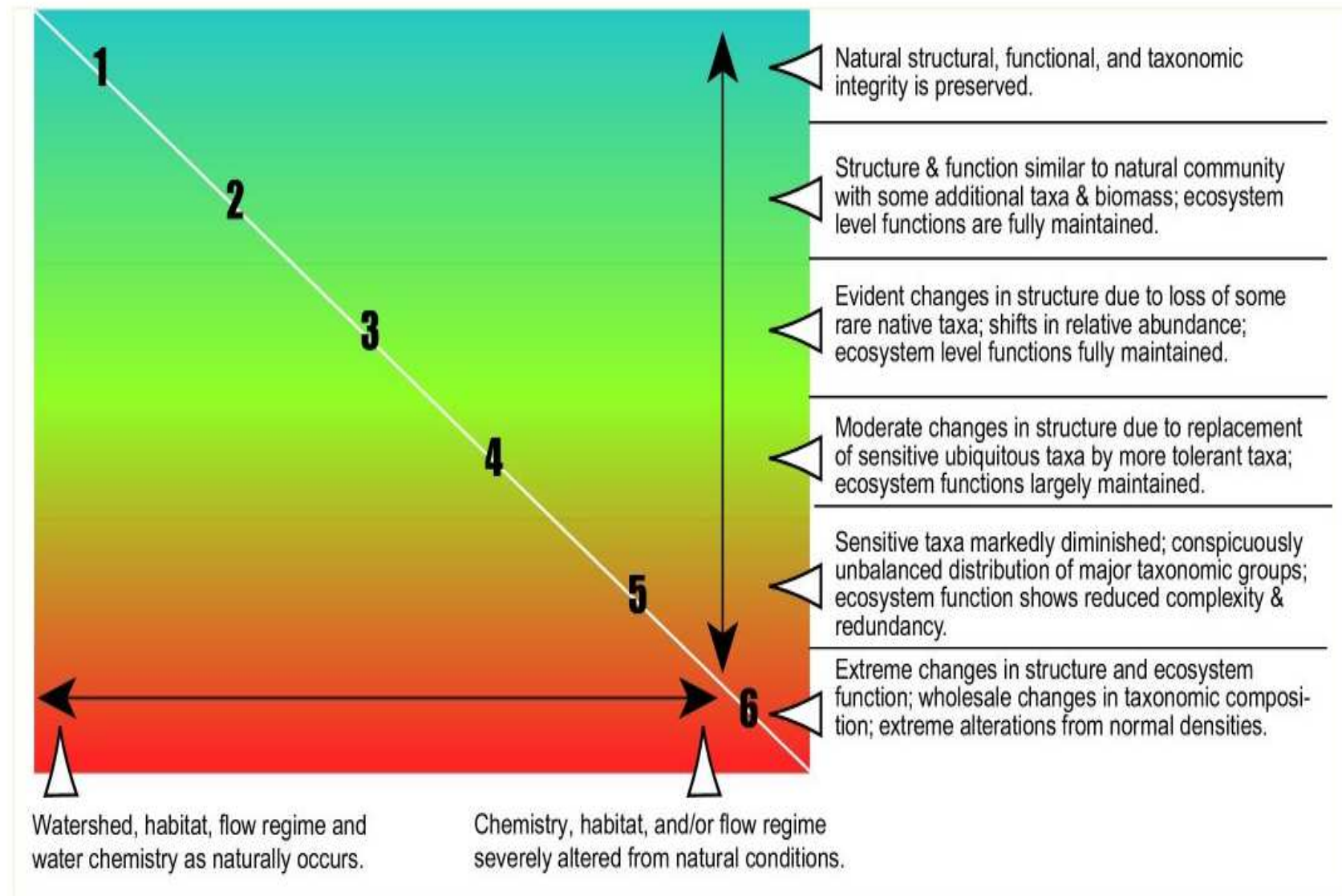
Streamhealth web site



Biological condition is determined by many supporting factors



General Biological Indicator Development Concept

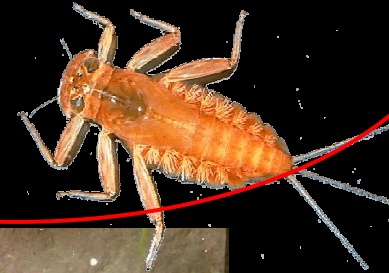


MBSS Indices of Biotic Integrity

-Fish



-Insects



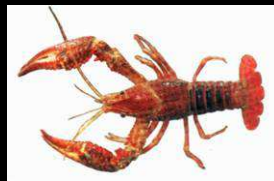
-Salamanders



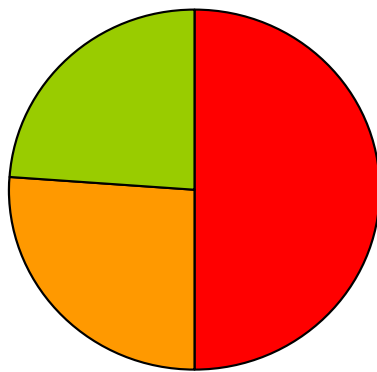
-Freshwater mussels



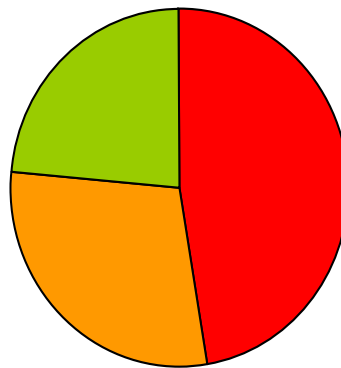
-Crayfish



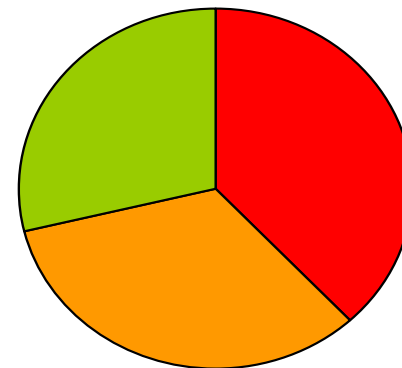
Maryland's Stream Ecological Condition



Round 1
1995 - 1997

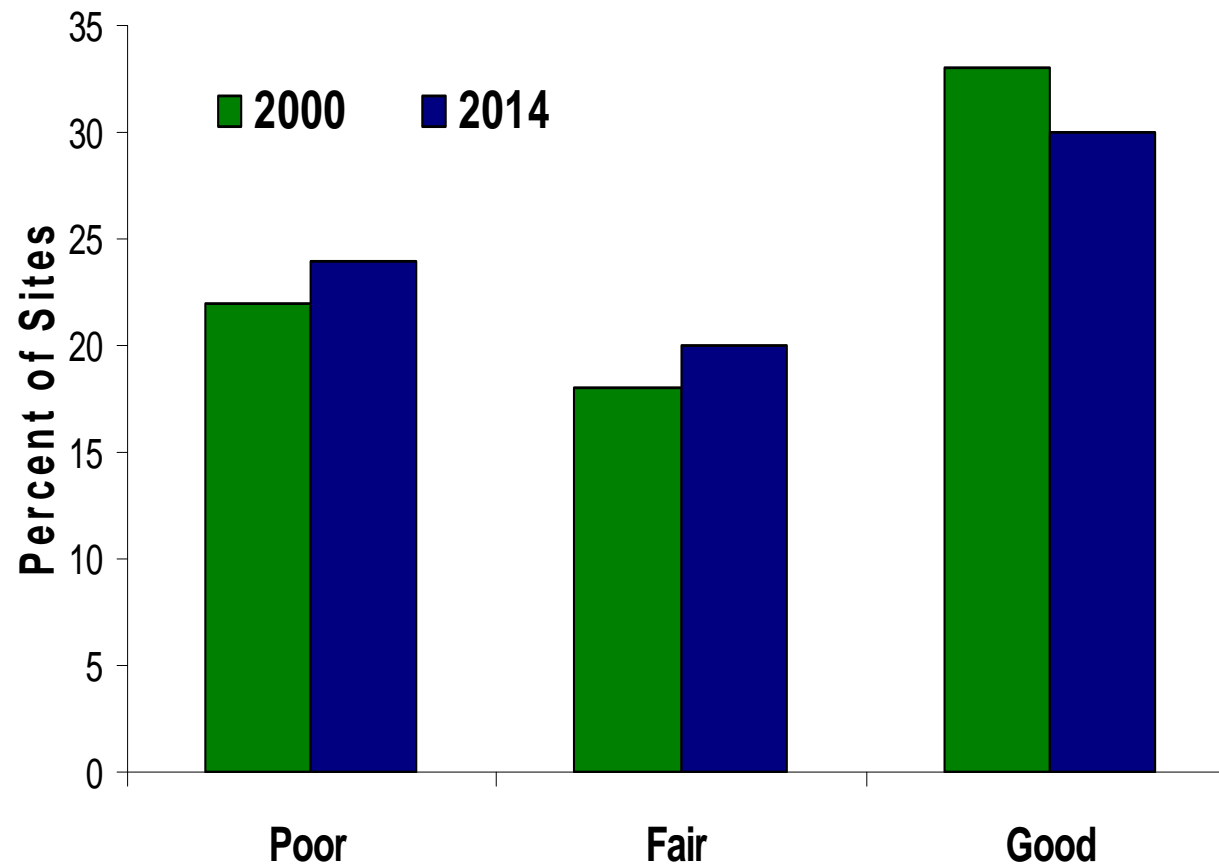


Round 2
2000-2004



Round 3
2007 - 2009

Round Four = Re-Sampling from Rounds One and Two



Why Training?

- Make sure we use consistent protocols and provide quality data
- Offer an opportunity for others to participate and learn protocols

Why Certification?

- To ensure and document consistency and comparability

Why Certification?

- Data of known quality for regulatory programs
- Increased non-DNR use of MBSS methods
- Demonstrate and document comparability
- Enhance data sharing
- Add datasets to StreamHealth website
- Qualify individuals to say “We use MBSS methods”

What is MBSS Certification?

- MBSS Certification is the process by which MD/DNR grants recognition to an individual who has proven that he or she has the knowledge, experience, and skills to perform specific MBSS protocols. The proof of this competence comes in the form of a certificate earned by **training, testing, and auditing**.
- MBSS Certification is NOT a license that infers any legal ability.

MBSS crew members participate in **the same training and testing** as non-DNR folks applying for certification

Maryland Biological Stream Survey Certifications Currently Offered

- Benthic Macroinvertebrate Sampling
- Benthic Macroinvertebrate Laboratory Processing and Sub-sampling
- Fish Crew Leader
- Fish Taxonomy

Maryland Biological Stream Survey Personnel

Questions?

